

1. Claim 1 is not anticipated by JP'803.

First, as Applicant noted in the Response dated December 15, 2003, claim 1 includes the specifically recited element "magnetic mass susceptibility of greater than 20×10^{-6} emu/g", and a magnetic susceptibility of this level cannot be achieved over the range of amounts of rare earth cations (0.001 to 35 wt%) that is set forth in JP'803. In fact, paramagnetic properties are completely absent from the cited reference. They are neither described nor suggested in JP'803. Because the elements of the claimed invention are not set forth identically in the cited reference, claim 1 is not anticipated by JP'803.

The Official Action suggests that the bare assertion in JP'803 that the polymers described therein are characterized by "various properties" is sufficient to support a rejection under 35 U.S.C. § 102. Applicant respectfully submits that such a statement is not enabling in any respect. It provides not even a hint that paramagnetism is one of the "various properties" to which the author of this unexamined publication is alluding. Nor does the Official Action adduce any evidence that one of ordinary skill in the art would normally associate exceptional values of magnetic mass susceptibility with the narrow peaks in visible spectra and the improved weather resistance that are vaunted in JP'803.

With respect to the allegation that Applicant's claimed magnetic mass susceptibility is inherent in the polymers set forth in JP'803, Applicant draws attention to the following well established doctrine:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (*emphasis in original*) (quoted in M.P.E.P. at § 2112). Applicant respectfully submits that the Official Action has not met this burden. Paramagnetic properties are highly

dependent on molecular structure, electron valences, and bonding, and therefore the mere coincidence of similar empirical formulae is insufficient to establish that two compounds have the same magnetic susceptibility. For example, some iron oxides have magnetic properties (Fe_3O_4 is magnetite), and others are simply rust.

In this connection, Applicant notes that there is no concentration element in claim 1; accordingly, the question of the thulium content of Working Example 8 in JP'803 is moot with respect to claim 1. Applicant respectfully submits, however, that it is impossible to conclude that any amount of thulium is "clearly sufficient" in the absence of any evidence whatsoever pertaining to paramagnetic properties. Moreover, the substance that is present at 8 wt% in the cited example is thulium methacrylate, not elemental thulium. Accordingly, the weight percent of thulium ions in the polymer to which the Official Action refers is actually $8 \text{ wt\%} \cdot [168.9 \text{ g/mol} / (168.9 + 86.1) \text{ g/mol}] = 5.3 \text{ wt\%}$ of thulium cations, which is well below the amount of rare earth cations that the Official Action has assumed is "clearly sufficient."

Accordingly, Applicant respectfully submits that claim 1 is not anticipated by JP'803. Claims 2 through 6 depend, directly or indirectly, from claim 1. It follows by statute that claims 2 through 6 are also not anticipated, in light of the reasoning set forth above with respect to claim 1. Therefore, it is respectfully requested that this rejection be withdrawn upon reconsideration.

2. Claim 7 and claim 13 are not obvious over JP'803.

Applicant respectfully submits that the Official Action has not met the burden of demonstrating that every element of Applicant's claimed invention is set forth in the cited reference. As noted above, JP'803 includes no working example in which the rare earth metal is selected from those with atomic numbers between 64 and 69, inclusive, and in which the concentration of rare

earth ions is greater than 9 wt%, all of which are features that are specifically recited in Applicant's claim 7. Working Example 8 of the cited reference, as discussed above, is markedly deficient in its level of thulium cations.

Likewise, with respect to claim 13, JP'803 includes no working example in which the rare earth metal is dysprosium or holmium, and in which the concentration of rare earth ions is greater than 5 wt%, all of which are features that are specifically recited in Applicant's claim 13. Again, with respect to Working Example 9 of JP'803, dysprosium methacrylate (4g) yields $4 \text{ wt}\% \cdot [168.9 \text{ g/mol} / (168.9 + 86.1) \text{ g/mol}] = 2.6 \text{ wt}\%$ of dysprosium cations, which is well below the amount of dysprosium cations that is specifically recited in claim 13.

Moreover, the rejection set forth in the Official Action has not met the burden of demonstrating that there is a teaching or suggestion in JP'803 to make Applicant's claimed transparent paramagnetic polymer in the cited reference. Applicant's transparent polymer is explicitly required to have paramagnetic properties. As is set forth in detail above, JP'803 includes no teaching or suggestion whatsoever regarding paramagnetic properties. In fact, it is unlikely that polymers with rare earth ion levels in the lower portion of the concentration range that is set forth in JP'803, near 0.001wt%, will be paramagnetic to any significant degree. Furthermore, there is not a scintilla of evidence that paramagnetism is among the unspecified "various properties" that are mentioned once, in passing, in the cited reference.

Finally, the Official Action has made no attempt to demonstrate that the description in JP'803 provides one of ordinary skill in the art with a reasonable expectation of success in synthesizing a paramagnetic polymer.

Accordingly, Applicant respectfully submits that claims 7 and 13 are not obvious over JP'803. Claims 8 through 12 and 14 through 18 depend, directly or indirectly, from claims 7 and 13, respectively. It follows by statute that claims 8 through 12 and 14 through 18 are also not obvious, in light of the reasoning set forth above with respect to claims 7 and 13. Therefore, it is respectfully requested that this rejection be withdrawn upon reconsideration.

Conclusion

A Petition for an Extension of Time for one month and the required fee for the extension is filed concurrently herewith. Should any further fee be required in connection with the present amendment, the Examiner is authorized to charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

In view of the above remarks, it is felt that all claims are in condition for allowance, and such action is respectfully requested. In closing, the Examiner is invited to contact the undersigned by telephone at (302) 992-3219 to conduct any business that may advance the prosecution of the present application.

Respectfully submitted,



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Dated: July 26, 2004